

Use Attainability Analysis

for

WBID 0731 Rivaux Creek

Submitted by

Aqua Missouri, Inc

To

Missouri Department of Natural Resources

Water Protection Program

RECEIVED

## Field Data Sheets for Recreational Use Stream Surveys

2005 JUL 13 PM 3:08

## Data Sheet A - Water Body Identification

WATER PROTECTION PROGRAM

|  |                                       |
|--|---------------------------------------|
| Water Body Name (from USGS 7.5' quad): | Rivary Creek                          |
| 8-digit HUC:                           | 1400122106 <sup>K</sup> 10300102      |
| Missouri WBID #:                       | 731                                   |
| County:                                | Callaway                              |
| Upstream Legal Description:            |                                       |
| Downstream Legal Description:          |                                       |
| Upstream Coordinates:                  |                                       |
| Downstream Coordinates:                |                                       |
| Discharger Facility Name(s):           | Big Sky Subd                          |
| Discharger Permit Number(s):           | MO0122106                             |
| Number of Sites Evaluated:             | 3 -                                   |
| Name of Surveyor and Telephone Number: | Kevin Culver 815-935-6530             |
| Organization:                          | Agua Missouri                         |
| Position:                              | Regional Environmental Compliance MGR |

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed:



Date:

7/12/05

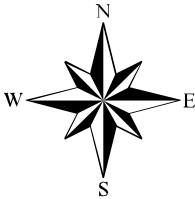
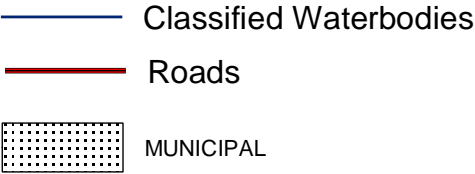
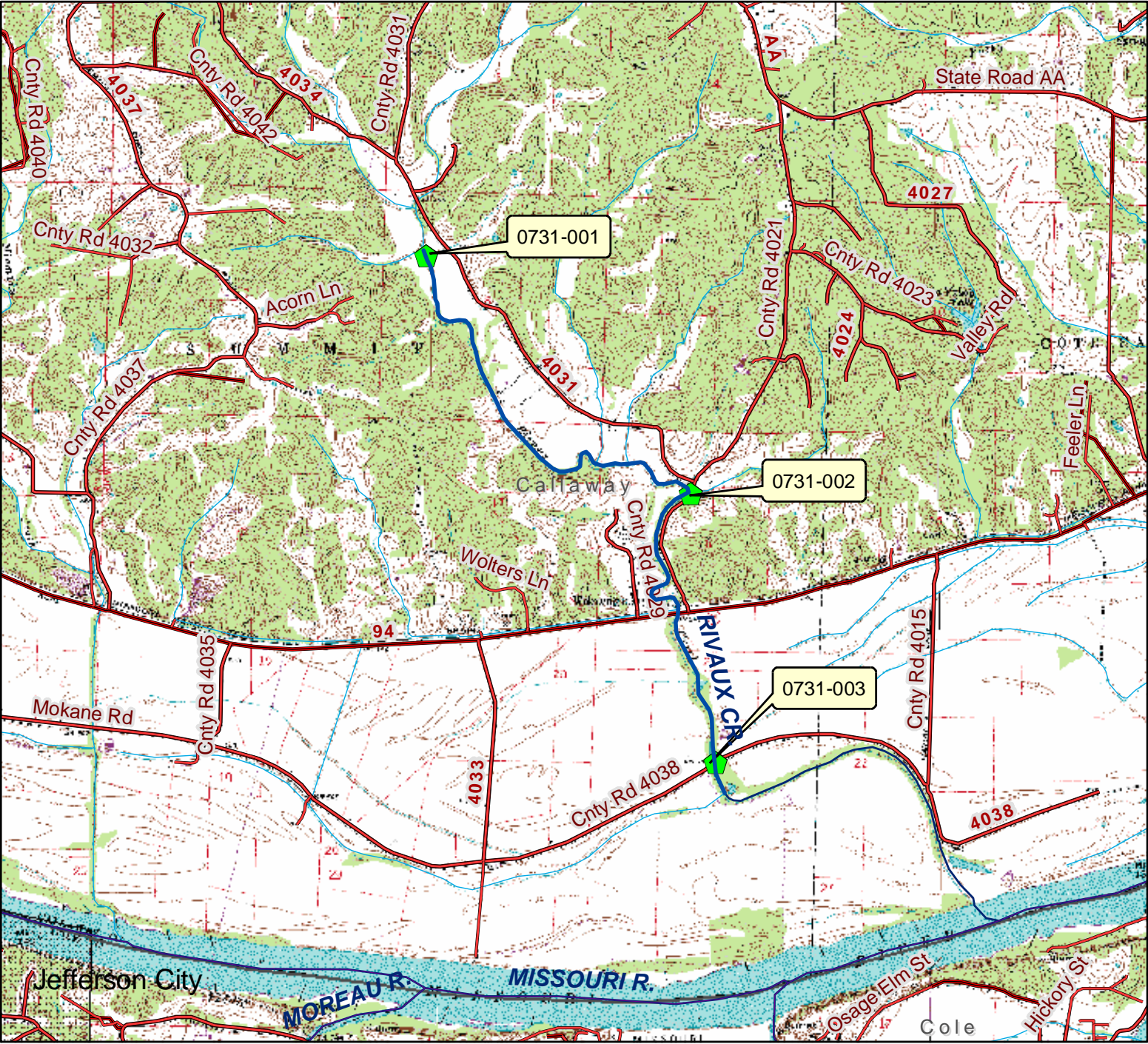
Personnel:

KMC - Kevin M. Culver

DB - Dom Biancucci

THR - Tera Hale-Rush

Rivaux Cr. (C) #0731 Callaway County  
HUC 8 - 10300102



## Field Data Sheets for Recreational Use Stream Surveys

### Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

|   |  |                             |
|---|--|-----------------------------|
| Missouri WBID #: <b>731-001</b>         | Site Location Description: <b>731-001 upstream + at Plant outfall at River</b> |                             |
| Site GPS Coordinates:                   |  |                             |
| Date & Time: <b>7/12/05 0645</b>        | Facility Name: <b>Big Sky</b>  |                             |
| Personnel: <b>KMC, DB, THR</b>          | Permit Number: <b>MO6112106</b>  |                             |
| Current Weather Conditions: <b>Rain</b> | Weather Conditions for Past 7 days: <b>Dry - except for rain event</b>         |                             |
| Photo Ids: Upstream: <b>0731-001 up</b> | Downstream: <b>0731-001 down</b>   | Other: <b>Plant outfall</b> |

#### Uses Observed\*:

|                                       |                                      |                                       |   |                                       |
|---------------------------------------|--------------------------------------|---------------------------------------|---|---------------------------------------|
| <input type="checkbox"/> Swimming     | <input type="checkbox"/> Skin diving | <input type="checkbox"/> SCUBA diving | <input type="checkbox"/> Tubing                       | <input type="checkbox"/> Water skiing |
| <input type="checkbox"/> Wind surfing | <input type="checkbox"/> Kayaking    | <input type="checkbox"/> Boating      | <input type="checkbox"/> Wading                       | <input type="checkbox"/> Rafting      |
| <input type="checkbox"/> Hunting      | <input type="checkbox"/> Trapping    | <input type="checkbox"/> Fishing      | <input checked="" type="checkbox"/> None of the above | <input type="checkbox"/> Other:       |

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

**no Flow Dry stream Bed - 1/3 mile Down till from LUTP**

#### Surrounding Conditions\*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

|  |                                      |  |  |   |
|--|--------------------------------------|--|--|---|
| <input type="checkbox"/> City/county parks | <input type="checkbox"/> Playgrounds | <input type="checkbox"/> MDC conservation lands  | <input type="checkbox"/> Urban areas   | <input type="checkbox"/> Campgrounds    |
| <input type="checkbox"/> Boating accesses  | <input type="checkbox"/> State parks | <input type="checkbox"/> National forests        | <input type="checkbox"/> Nature trails | <input type="checkbox"/> Stairs/walkway |
| <input type="checkbox"/> No trespass sign  | <input type="checkbox"/> Fence       | <input checked="" type="checkbox"/> Steep slopes | <input type="checkbox"/> Other:        |   |

#### Evidence of Human Use\*:

|                                      |  |  |   |  |
|--------------------------------------|--|--|---|--|
| <input type="checkbox"/> Roads       | <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Dock/platform | <input type="checkbox"/> Livestock Watering | <input type="checkbox"/> RV / ATV Tracks |
| <input type="checkbox"/> Rope swings | <input type="checkbox"/> Camping Sites     | <input type="checkbox"/> Fire pit/ring | <input type="checkbox"/> NPDES Discharge    | <input type="checkbox"/> Fishing Tackle  |
| <input type="checkbox"/> Other:      |  | <b>none</b>                            |   |  |

#### Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet B - Site Characterization

Page Two - WBID # 73/1001

### Stream Morphology:

#### Upstream View Physical Dimensions:

|                                 |  |  |                  |                  |
|---------------------------------|--|--|------------------|------------------|
| <input type="checkbox"/> Riffle | Width (ft):  | Length (ft):   | Avg. Depth (ft): | Max. Depth (ft): |
| <input type="checkbox"/> Run    | Width (ft):  | Length (ft):   | Avg. Depth (ft): | Max. Depth (ft): |
| <input type="checkbox"/> Pool   | Width (ft):  | Length (ft):   | Avg. Depth (ft): | Max. Depth (ft): |
| <input type="checkbox"/> Flow   | Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Estimated (ft <sup>3</sup> /sec): <u>0</u> <i>dry stream bed -</i> |                  |                  |

#### Downstream View Physical Dimensions:

|                                 |  |  |                  |                  |
|---------------------------------|--|--|------------------|------------------|
| <input type="checkbox"/> Riffle | Width (ft):  | Length (ft):                               | Avg. Depth (ft): | Max. Depth (ft): |
| <input type="checkbox"/> Run    | Width (ft):  | Length (ft):                               | Avg. Depth (ft): | Max. Depth (ft): |
| <input type="checkbox"/> Pool   | Width (ft):  | Length (ft):                               | Avg. Depth (ft): | Max. Depth (ft): |
| <input type="checkbox"/> Flow   | Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Estimated (ft <sup>3</sup> /sec): <u>0</u> |                  |                  |

#### Substrate\*: (These values should add up to 100%.)

|                     |          |        |        |            |           |
|---------------------|----------|--------|--------|------------|-----------|
| <u>100</u> % Cobble | % Gravel | % Sand | % Silt | % Mud/Clay | % Bedrock |
|---------------------|----------|--------|--------|------------|-----------|

#### Aquatic Vegetation\*: (note amount of vegetation or algal growth at the assessment site)

|             |
|-------------|
| <u>None</u> |
|-------------|

#### Water Characteristics\*: (Mark all that apply.)

|                  |                                 |                                 |   |                                |                                 |
|------------------|---------------------------------|---------------------------------|---|--------------------------------|---------------------------------|
| Odor:            | <input type="checkbox"/> Sewage | <input type="checkbox"/> Musky  | <input type="checkbox"/> Chemical       | <input type="checkbox"/> None  | <input type="checkbox"/> Other: |
| Color:           | <input type="checkbox"/> Clear  | <input type="checkbox"/> Green  | <input type="checkbox"/> Gray           | <input type="checkbox"/> Milky | <input type="checkbox"/> Other: |
| Bottom Deposit:  | <input type="checkbox"/> Sludge | <input type="checkbox"/> Solids | <input type="checkbox"/> Fine sediments | <input type="checkbox"/> None  | <input type="checkbox"/> Other: |
| Surface Deposit: | <input type="checkbox"/> Oil    | <input type="checkbox"/> Scum   | <input type="checkbox"/> Foam           | <input type="checkbox"/> None  | <input type="checkbox"/> Other: |

Comments: Please attach additional comments (including information from interviews) to this form.

no flow

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Re. M. Cule

Date: 7/12/05

Organization: Aqua Missouri, Inc

Position: ENV. Compliance MGR

# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

|  |   |        |
|--|---|--------|
| Missouri WBID #: 731-002                     | Site Location Description: <i>Rumple Road - cross Road 4031 + 4021</i>    |        |
| Site GPS Coordinates:                        | <i>upstream of Plat Outfall</i>   |        |
| Date & Time: 7/12/05 09:30 AM                | Facility Name: <i>Big Sky Subd -</i>                                      |        |
| Personnel: KMC, DB, THR                      | Permit Number: <i>MO0112106</i>   |        |
| Current Weather Conditions: <i>rain/mist</i> | Weather Conditions for Past 7 days: <i>Dry except current rain event.</i> |        |
| Photo Ids: Upstream: <i>0731-002 up</i>      | Downstream: <i>0731-002 down</i>  | Other: |

### Uses Observed\*:

|  |                                      |                                       |   |                                       |
|--|--------------------------------------|---------------------------------------|---|---------------------------------------|
| <input type="checkbox"/> Swimming  | <input type="checkbox"/> Skin diving | <input type="checkbox"/> SCUBA diving | <input type="checkbox"/> Tubing                       | <input type="checkbox"/> Water skiing |
| <input type="checkbox"/> Wind surfing  | <input type="checkbox"/> Kayaking    | <input type="checkbox"/> Boating      | <input type="checkbox"/> Wading                       | <input type="checkbox"/> Rafting      |
| <input type="checkbox"/> Hunting   | <input type="checkbox"/> Trapping    | <input type="checkbox"/> Fishing      | <input checked="" type="checkbox"/> None of the above | <input type="checkbox"/> Other:       |
| Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.) |                                      |                                       |   |                                       |

### Surrounding Conditions\*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

|  |                                      |  |  |   |
|--|--------------------------------------|--|--|---|
| <input type="checkbox"/> City/county parks | <input type="checkbox"/> Playgrounds | <input type="checkbox"/> MDC conservation lands  | <input type="checkbox"/> Urban areas   | <input type="checkbox"/> Campgrounds    |
| <input type="checkbox"/> Boating accesses  | <input type="checkbox"/> State parks | <input type="checkbox"/> National forests        | <input type="checkbox"/> Nature trails | <input type="checkbox"/> Stairs/walkway |
| <input type="checkbox"/> No trespass sign  | <input type="checkbox"/> Fence       | <input checked="" type="checkbox"/> Steep slopes | <input type="checkbox"/> Other:        |   |

### Evidence of Human Use\*:

|   |  |  |   |  |
|---|--|--|---|--|
| <input type="checkbox"/> Roads              | <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Dock/platform | <input type="checkbox"/> Livestock Watering | <input type="checkbox"/> RV / ATV Tracks |
| <input type="checkbox"/> Rope swings        | <input type="checkbox"/> Camping Sites     | <input type="checkbox"/> Fire pit/ring | <input type="checkbox"/> NPDES Discharge    | <input type="checkbox"/> Fishing Tackle  |
| <input type="checkbox"/> Other: <i>None</i> |  |  |   |  |

### Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet B - Site Characterization

Page Two - WBID # 731-001

### Stream Morphology:

#### Upstream View Physical Dimensions:

|  |  |   |                            |                              |
|--|--|---|----------------------------|------------------------------|
| <input type="checkbox"/> Riffle          | Width (ft):  | Length (ft):  | Avg. Depth (ft):           | Max. Depth (ft):             |
| <input type="checkbox"/> Run             | Width (ft):  | Length (ft):  | Avg. Depth (ft):           | Max. Depth (ft):             |
| <input checked="" type="checkbox"/> Pool | Width (ft): <u>25'</u>   | Length (ft): <u>100'</u>  | Avg. Depth (ft): <u>.6</u> | Max. Depth (ft): <u>1.8'</u> |
| <input type="checkbox"/> Flow            | Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Estimated (ft <sup>3</sup> /sec): <u>not measurable too low</u> |                            |                              |

#### Downstream View Physical Dimensions:

|  |  |                                   |                  |                  |
|--|--|-----------------------------------|------------------|------------------|
| <input checked="" type="checkbox"/> Riffle | Width (ft): <u>Dry</u>   | Length (ft):                      | Avg. Depth (ft): | Max. Depth (ft): |
| <input type="checkbox"/> Run               | Width (ft):  | Length (ft):                      | Avg. Depth (ft): | Max. Depth (ft): |
| <input type="checkbox"/> Pool              | Width (ft):  | Length (ft):                      | Avg. Depth (ft): | Max. Depth (ft): |
| <input type="checkbox"/> Flow              | Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Estimated (ft <sup>3</sup> /sec): |                  |                  |

#### Substrate\*: (These values should add up to 100%.)

|                    |          |        |                  |                      |           |
|--------------------|----------|--------|------------------|----------------------|-----------|
| <u>50</u> % Cobble | % Gravel | % Sand | <u>25</u> % Silt | <u>25</u> % Mud/Clay | % Bedrock |
|--------------------|----------|--------|------------------|----------------------|-----------|

#### Aquatic Vegetation\*: (note amount of vegetation or algal growth at the assessment site)

|                                |
|--------------------------------|
| <u>NONE dry in recent past</u> |
|--------------------------------|

#### Water Characteristics\*: (Mark all that apply.)

|                  |   |                                 |  |  |                                 |
|------------------|---|---------------------------------|--|--|---------------------------------|
| Odor:            | <input type="checkbox"/> Sewage           | <input type="checkbox"/> Musky  | <input type="checkbox"/> Chemical                  | <input checked="" type="checkbox"/> None | <input type="checkbox"/> Other: |
| Color:           | <input checked="" type="checkbox"/> Clear | <input type="checkbox"/> Green  | <input type="checkbox"/> Gray                      | <input type="checkbox"/> Milky           | <input type="checkbox"/> Other: |
| Bottom Deposit:  | <input type="checkbox"/> Sludge           | <input type="checkbox"/> Solids | <input checked="" type="checkbox"/> Fine sediments | <input type="checkbox"/> None            | <input type="checkbox"/> Other: |
| Surface Deposit: | <input type="checkbox"/> Oil              | <input type="checkbox"/> Scum   | <input type="checkbox"/> Foam                      | <input checked="" type="checkbox"/> None | <input type="checkbox"/> Other: |

#### Comments: Please attach additional comments (including information from interviews) to this form.

Recent Rain Filled pools But no measurable Flow exists

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I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Ken M. Cuh Date: 7/12/05

Organization: Aqua Missouri Position: Env. Compliance MGR

## Field Data Sheets for Recreational Use Stream Surveys

### Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

|   |  |        |
|---|--|--------|
| Missouri WBID #: <b>731-003</b>             | Site Location Description: <b>Levell &amp; 4012 - at<br/>wooded Tunnel -</b> |        |
| Site GPS Coordinates:                       |  |        |
| Date & Time: <b>7/12/05 1040 AM</b>         | Facility Name: <b>Big Sky Subd.</b>  |        |
| Personnel: <b>KMC, DB THR</b>               | Permit Number: <b>MO06122106</b>   |        |
| Current Weather Conditions: <b>dry</b>      | Weather Conditions for Past 7 days: <b>dry - rain this AM.</b>               |        |
| Photo Ids: Upstream: <b>0731-003<br/>up</b> | Downstream: <b>0731-003<br/>2nd down</b>                                     | Other: |

#### Uses Observed\*:

|                                       |                                      |                                       |   |                                       |
|---------------------------------------|--------------------------------------|---------------------------------------|---|---------------------------------------|
| <input type="checkbox"/> Swimming     | <input type="checkbox"/> Skin diving | <input type="checkbox"/> SCUBA diving | <input type="checkbox"/> Tubing                       | <input type="checkbox"/> Water skiing |
| <input type="checkbox"/> Wind surfing | <input type="checkbox"/> Kayaking    | <input type="checkbox"/> Boating      | <input type="checkbox"/> Wading                       | <input type="checkbox"/> Rafting      |
| <input type="checkbox"/> Hunting      | <input type="checkbox"/> Trapping    | <input type="checkbox"/> Fishing      | <input checked="" type="checkbox"/> None of the above | <input type="checkbox"/> Other:       |

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

**Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

|  |                                      |  |  |   |
|--|--------------------------------------|--|--|---|
| <input type="checkbox"/> City/county parks | <input type="checkbox"/> Playgrounds | <input type="checkbox"/> MDC conservation lands  | <input type="checkbox"/> Urban areas   | <input type="checkbox"/> Campgrounds    |
| <input type="checkbox"/> Boating accesses  | <input type="checkbox"/> State parks | <input type="checkbox"/> National forests        | <input type="checkbox"/> Nature trails | <input type="checkbox"/> Stairs/walkway |
| <input type="checkbox"/> No trespass sign  | <input type="checkbox"/> Fence       | <input checked="" type="checkbox"/> Steep slopes | <input type="checkbox"/> Other:        |   |

#### Evidence of Human Use\*:

|   |  |  |   |  |
|---|--|--|---|--|
| <input type="checkbox"/> Roads                              | <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Dock/platform | <input type="checkbox"/> Livestock Watering | <input type="checkbox"/> RV / ATV Tracks |
| <input type="checkbox"/> Rope swings                        | <input type="checkbox"/> Camping Sites     | <input type="checkbox"/> Fire pit/ring | <input type="checkbox"/> NPDES Discharge    | <input type="checkbox"/> Fishing Tackle  |
| <input type="checkbox"/> Other: <b>None - Trash Deposit</b> |  |  |   |  |

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet B - Site Characterization

Page Two - WBID # 731-003

### Stream Morphology:

#### Upstream View Physical Dimensions:

|  |   |  |                            |                              |
|--|---|--|----------------------------|------------------------------|
| <input type="checkbox"/> Riffle          | Width (ft):   | Length (ft):   | Avg. Depth (ft):           | Max. Depth (ft):             |
| <input type="checkbox"/> Run             | Width (ft):   | Length (ft):   | Avg. Depth (ft):           | Max. Depth (ft):             |
| <input checked="" type="checkbox"/> Pool | Width (ft): <u>15'</u>  | Length (ft): <u>100'</u>   | Avg. Depth (ft): <u>.8</u> | Max. Depth (ft): <u>1.2'</u> |
| <input type="checkbox"/> Flow Present?   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Estimated (ft <sup>3</sup> /sec): <u>3.8' 15' x .8 x 100 = 3.16</u><br><u>0.9 ft<sup>3</sup>/sec</u> |                            |                              |

#### Downstream View Physical Dimensions:

|   |   |   |                            |                            |
|---|---|---|----------------------------|----------------------------|
| <input type="checkbox"/> Riffle         | Width (ft):   | Length (ft):  | Avg. Depth (ft):           | Max. Depth (ft):           |
| <input checked="" type="checkbox"/> Run | Width (ft): <u>6'</u>   | Length (ft):  | Avg. Depth (ft): <u>.6</u> | Max. Depth (ft): <u>.8</u> |
| <input type="checkbox"/> Pool           | Width (ft):   | Length (ft):  | Avg. Depth (ft):           | Max. Depth (ft):           |
| <input type="checkbox"/> Flow Present?  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Estimated (ft <sup>3</sup> /sec): <u>3.8' 6' x .6 x 100 = 3.16</u><br><u>0.9 ft<sup>3</sup>/sec</u> |                            |                            |

### Substrate\*: (These values should add up to 100%.)

|          |          |        |        |                       |           |
|----------|----------|--------|--------|-----------------------|-----------|
| % Cobble | % Gravel | % Sand | % Silt | <u>100</u> % Mud/Clay | % Bedrock |
|----------|----------|--------|--------|-----------------------|-----------|

### Aquatic Vegetation\*: (note amount of vegetation or algal growth at the assessment site)

|  |
|--|
| <u>None - very Turbid - Clay/mud substrate</u> |
|--|

### Water Characteristics\*: (Mark all that apply.)

|                  |                                 |                                 |  |   |                                 |
|------------------|---------------------------------|---------------------------------|--|---|---------------------------------|
| Odor:            | <input type="checkbox"/> Sewage | <input type="checkbox"/> Musky  | <input type="checkbox"/> Chemical                  | <input checked="" type="checkbox"/> None  | <input type="checkbox"/> Other: |
| Color:           | <input type="checkbox"/> Clear  | <input type="checkbox"/> Green  | <input checked="" type="checkbox"/> Gray           | <input checked="" type="checkbox"/> Milky | <input type="checkbox"/> Other: |
| Bottom Deposit:  | <input type="checkbox"/> Sludge | <input type="checkbox"/> Solids | <input checked="" type="checkbox"/> Fine sediments | <input type="checkbox"/> None             | <input type="checkbox"/> Other: |
| Surface Deposit: | <input type="checkbox"/> Oil    | <input type="checkbox"/> Scum   | <input type="checkbox"/> Foam                      | <input checked="" type="checkbox"/> None  | <input type="checkbox"/> Other: |

**Comments:** Please attach additional comments (including information from interviews) to this form.

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I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [Signature] Date: 7/12/05

Organization: Agua Missouri Position: Env. Compliance MGR